

NAME		Assignment Grade			Review Exercise Grade	
My KS5 Target Grade is		End of Cycle Assessment				
		SAE	AE	E	BE	SBE

YEAR 12 Mathematics	CYCLE 3: Pure Units 4b, 5, 6a
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	Knowledge		Chapter	Check
Trigonometric Identities & Equations	I can calculate the sine cosine and tangent of any angle. I know the exact trigonometric ratios for 30°, 45° and 60°	5.3	10.1-2	
	I understand and can use the trigonometric identities $\frac{\sin(\theta)}{\cos(\theta)} = \tan(\theta)$ and $\sin^2 \theta + \cos^2 \theta = 1$	5.5	10.3	
	I can solve Simple Trigonometric Equations of the form: $\sin(\theta) = k$, $\cos(\theta) = k$ and $\tan(\theta) = k$ in a given range	5.7	10.4	
	I can solve Harder Trigonometric Equations in the form: $\cos n(\theta) = k$ and $\cos(\theta \pm \alpha) = k$ and equivalent sin & tan in a given range	5.7	10.5	
	I can solve trigonometric equations that give two sets of solutions in a given range	5.7	10.6	
Vectors (2D)	I can use vectors in two dimensions and use triangle and parallel vector properties in vector addition and represent it in diagrams	10.1/3	11.1	
	I can use column vectors and carry out arithmetic operations on vectors. I know a vector can be described by its displacement relative to x and y axis	10.1/2	11.2	
	I can calculate the Magnitude & Direction of a vector	10.2	11.3	
	I understand and can use position vectors	10.4	11.4	
	I can use vectors to solve geometric problems	10.5	11.5	
	I understand vector magnitude and can use vectors in speed and distance calculations. I can use vectors to solve problems in context.	10.5	11.6	

Differentiation Part 1	I can calculate the Gradients of Curves	7.1	12.1	
	I can find the derivative of a simple function and can prove differentiation from first principals	7.1	12.2	
	I can use differentiation to find the derivative of a function x^n	7.2	12.3	
	I can differentiate quadratic function	7.2	12.4	
	I can use the rule for differentiating simple functions to find the derivative of functions with two or more terms	7.2	12.5	

YEAR 12 Mathematics **CYCLE 3: Statistics Unit 3, 4, 5a**

Knowledge			Chapter	Check
Probability	I can calculate probabilities for single events	3.1	5.1	
	I am able to draw and interpret Venn Diagrams	3.1	5.2	
	I understand Mutually Exclusive Events and independent events, I can determine if two events are independent	3.1	5.3	
	I can use and understand Tree Diagrams	3.1	5.4	
Statistical Distributions & Hypothesis Testing	I understand and can use simple discrete probability distributions including discrete uniform distribution	4.1	6.1	
	I understand the Binomial Distribution as a model and can comment on its appropriateness I can calculate individual probabilities for the binomial distribution.	4.1	6.2	
	I can calculate cumulative probabilities for the binomial distribution using my calculator	4.1	6.3	
	I understand and can apply the language of statistical Hypothesis Testing. I understand that a sample is used to make an inference about a population.	5.1/2	7.1-2	

YEAR 12 Mathematics **CYCLE 3: Mechanics Unit 7a & 7b**

Constant Acceleration	I understand and can interpret displacement Time Graphs	7.1	9.1	
	I understand and can interpret Velocity Time Graphs	7.2	9.2	
	I can derive the Constant Acceleration Formulae: $v = u + at$ and $s = \frac{(u+v)t}{2}$ and use them to solve problems	7.3	9.3	
	I can derive the Constant Acceleration Formulae: $v^2 = u^2 + 2as$, $s = ut + \frac{1}{2}at^2$ and $s = vt - \frac{1}{2}at^2$ and use them to solve problems	7.3	9.4	
	I can use the constant acceleration formulae to solve problems including Vertical Motion Under Gravity	8.3	9.5	